



The

GARzette



The Official Newsletter of the Gwinnett Amateur Radio Society

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www.GARS.org



GARS January Exhibition of the
Technical aspects of Amateur Radio
Held at the Gwinnett County Fairgrounds



**Don't forget to support our
advertisers at the back of the
GARzette.**

**GARS Meeting: GARS Show-n-Tell
Tuesday October 10, 2023 at 7:00 PM**



President's Message

From the President...



We had another very successful **Ham Cram** recently by the great folks of GARS. John Davis (WB4QDX) and Ralph Pickwick (KJ4CNC) put together another successful batch of newly licensed Hams. Many thanks to Dave's (W4DTR) Volunteer

Examiner Team who took extra time to administer the tests.

JAMBOREE ON THE AIR (JOTA) will be on October 21st from 9:00 AM – 4:00 PM and held at the usual area - VFW Post 5255, 368 Grayson Highway in Lawrenceville. Come out and lend a hand by introducing some Scouts to Amateur Radio. Answer some questions or perhaps demonstrate a communications mode to a young person. Grab some grub and show the youngsters support and encouragement as they try their hand at making some of those nervous contacts. We hope to see you there.

LAWRENCEVILLE HAM FEST will be here before we know it. **Whatcha lookin' for?** A new antenna mounting bracket, or a length of good coax to make that new connection. We will have all that at the ham fest and more at the GARS flea market table. So, stop **buy**, to **buy**, something you just cannot get **buy**, without. See what I did there. A special discount to all GARS members. Remember, all GARS flea market table sales benefit our GARS Scholarship program, which ultimately benefits some college student on their educational quest. See you there.

We still need some volunteers to help setup tables, chairs, direct traffic flow, and other things that it takes to pull off a good ham fest event. We will also need folks to help at the GARS booth/tables. If nothing else to just answer any

questions about GARS, or hand out some club literature. Or even hand out some popcorn to make a fest goer smile as they walk away with some warm buttery freshly made popcorn, all the while they roam the floor spreading that wonderful popcorn smell.

See [gars.org](https://www.gars.org) and follow the links to a sign-up sheet to volunteer to help make the work load of all, a little easier.

Our **GARS HOLIDAY PARTY is December 2nd** this year, and is in the planning stages already with Geri Foust (K4GMF) controlling the helm and getting things rolling. There may be an activity where we all bring a radio related or electronic item to decorate a holiday wreath. Then have a chance to win and take home the completed Holiday Wreath. Perhaps worth hundreds, of...smiles.

See the GARS website later to see the details on how to purchase tickets to the banquet dinner. Of course, you do not need to purchase the meal in order to enjoy the lively company of your fellow club members and partake in the evening activities.

Scheduled too, is a unique musical talent that will entertain us for a short while as we all wonder who will be crowned the **GARS Ham of the Year**.

Speaking of which, make sure you visit [GARS.org](https://www.gars.org) to see how you can submit a fellow GARS member for the **2023 GARS Ham of the Year** which will be announced at the GARS Holiday Party December 2nd. Or visit: <https://www.gars.org/gars/email-hoty/>

73,

Joe Biddle, AD4PZ

Club President

GARS Repeaters and Other Communications

2 Meter Repeaters 147.075(+) MHz Tone 82.5 147.255(+) MHz Tone 107.2 1.25 Meter Repeater 224.580(-) MHz Tone 100.0, 1.6 MHz Offset 70 Cm Repeaters 444.525(+) MHz Tone 82.5 442.100(+) MHz Tone 100 442.325(+) MHz Tone 100	6 Meter Repeater 53.110 (-1 MHz) No Tone (Offline for Maintenance) Other Resources: APRS 144.390 -- 1200 Baud W4GR D-STAR (WD4STR) 145.060 + (1.4 MHz) 440.550 + (5 MHz)	6M Currently down 147.075 Operational in Snellville 147.255 Operational in Snellville 224.580 Operational in Grayson 442.100 Operational at Goshen Springs 442.325 Operational in Buford 444.525 Operational in Snellville Link remote receivers being added
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Notable Web Links

Ham Radio Glossary: <https://noji.com/hamradio/glossary.php> a very comprehensive listing provided by Noji Ratzlaff KNØJI. On his site there is also a lot of information about getting started in ham radio.

Need Help – Let GARS Elmers answer your questions

Send an email to elmers@gars.org with the subject listing the area (like Antennas, Repeaters, Digital, DMR etc.) of your query to get to GARS Elmer volunteers.

About the GARzette

The *GARzette* is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the Amateur Radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by e-mail to editor@gars.org. Artwork can be accepted in most any graphics format and can be submitted via e-mail to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the Amateur Radio spirit, permission is hereby granted for the reproduction of The *GARzette* articles by other Amateur Radio club newsletters provided that proper credit is given to the individual author and *The GARzette*.

The GARzette is published each month with the assistance of Karen KI4HPP and Kyle W4KDA who print copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the newsletter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue.

For additional information view our Website at: <http://www.gars.org> [PS— Articles to publish in the *GARzette*, either written by GARS members or published elsewhere, are always welcome. —Ed.]

Newsletter Email: editor@gars.org Editor: Bob Hoffmann, K4CQO

GARS Personalized Mugs for sale – Bits Print and Press



**Jolie
Dellaneve-
Brown,
KO4AHI**



<mailto:bitsprintandpress@gmail.com>

GARS Meetings & Workshops

GARS Meetings and Workshops are held in-person at the EAA 690 Hangar, 690 Airport Rd, Lawrenceville, GA 30046.

Meetings and Workshops are OPEN to all, feel free to share your invite with others.

GARS Meetings Schedule (second Tuesday @ 7:00 PM): (these are the presentations)

- October 10 2023 - Show-n-Tell, Favorite Ham Projects
- November 14, 2023 – **TBD**
- December 2, 2023 – GARS Holiday Party
- January 09 - Soldering Surface Mount Technology (SMT) Devices
- February 13 - DIY PCB Layout Using KiCAD

Workshop Schedule (third Tuesday @ 7:00 PM): (these are the Hands-on Workshops)

- October 17 2023 - Show-n-Tell, Favorite Ham Projects
- November 21, 2023 – **TBD**
- December – No workshop, hope to see you at the GARS Holiday Party
- January 16 - Soldering Surface Technology (SMT) Devices
- February 20 - DIY PCB Layout Using KiCAD

GARS Meeting – October 10, 2023 GARS Show-n-Tell

The GARS Show-n-Tell has become an Annual GARS Event where members share their favorite ham radio projects. Could be a rig that was restored or a kit that was built. Or experiments with a new antenna or piece of electronic test equipment.

GARS Workshop – October 17, 2023

For the Workshop we will go over in detail how those Show-n-Tell items can be used in our own ham shack or antenna farm. If any of the Show-n-Tell items are brought to the Workshop we can go over them in detail.

Besides answering any questions about your specific mobile radio installations, feel free to bring along your show-n-tell items and questions. We typically have 5 or more Elmers at each Workshop.

GARS would like to thank all the members who provided their favorite web sites during last month's meeting.

Ham Of The Year

Nominations may be submitted by GARS Members about other GARS Members, for actions in which they have volunteered, served, and have given of their time and effort to our great Club.

Submit someone and a list of reasons why this GARS member deserves this award. The Officers, who are exempt from nominations by the way, will review the submitted nominations and select the GARS Ham of the Year for 2023.

To submit a nomination, please fill out the form at <http://www.gars.org/gars/hoty/> by **October 31st** for consideration.

GARS Happenings

20 Years ago in the October 2003 GARzette:

- There was an interesting article about ham radio operators helping with Oklahoma Tornado Shelters
- Razor blade detectors used for getting kids interested in ham radio under "ARRL Harmonics web page"
- An interesting article about Broadband over Power Line (BPL) ... precursor to digital internet?

You can always browse the GARzette archive at <http://www.gars.org/newsletters>. 73, Bob, K4CQO, GARzette Editor



Health and Wellbeing – Sandy Jackson, KJ4DRO

Look for this resource on [Email \(https://gars.org/contact/\)](https://gars.org/contact/) and use it as a means to convey information about a GARS family member or Silent Key notification.

Net Managers Corner

Monday Night 2 Meter "Want, Swap, Sell, and Information Net"

GARS NEEDS MEMBERS TO SERVE AS NET CONTROL STATIONS!

GARS is a great Amateur Radio service club with the membership and awards to prove it. Our club is very busy and active, and we use the Monday night net to get timely information out to our members. Weekly participation is needed to make our net function well. There is only a small group of very dedicated people who make the net happen each week, and we need more members to volunteer to serve as Net Control Stations (NCS) on a rotating basis.

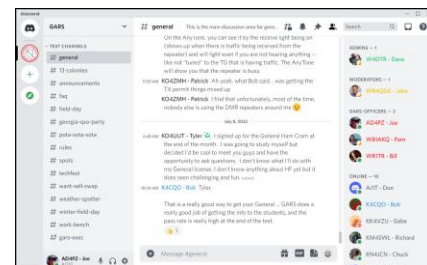
Out of almost 300 members, there are only seven operators who serve as the NCS for the GARS net every Monday night. In no particular order, they are:

Ray – N4GYN David – KA4KKF Kevin – W4KIB Fisher – W4LON Chuck – KK4TKJ

As GARS Net Manager (Chuck KK4TKJ), I would like to have more volunteers to fill NCS positions. I do plan and post the schedule months in advance. Any conditions will be accommodated that you as a rotating NCS need to place on the scheduling of your duties. If your plans change, I can make adjustments for the schedule to work, and I will make those changes happen as soon as I am notified of a problem. As Net Manager, I also send out reminders each week to let the NCS scheduled know he or she is NCS for the next Monday night net. In short, serving as a rotating NCS is a small duty but a great contribution to the club. The "Want, Swap, Sell Information Net" begins promptly at 19:30 every Monday night and runs about 30 minutes. As a scheduled NCS, you will request the assistance of a volunteer alternate NCS each time you have Net Control. Your simple duties will be to tune in to the GARS repeater, read the script, take a few notes and forward the information to me for record keeping.

Please lend a hand and contact (Chuck) via [Email \(https://gars.org/contact/\)](https://gars.org/contact/) to help support the effort that makes GARS the great club that it is. See you on the Nets!

Don't forget about our Discord utility for GARS announcements, news, activity spotting and more. See <http://www.gars.org> top of the home page. This is a sample of Discord. →





GARS Technician HamCram Results

We had a great exam session on 10/1/23. Thanks to Ralph KJ4CNC and John WB4QDX for teaching this Ham Cram class.



➔ 4 (100%) got their new Technician licenses:

- Donna Gallaher KQ4LQH
- Jolie Mayo KQ4LQX
- David Wheeler KQ4LQI
- Judy Wintemute KQ4LQY

Special thanks to the Volunteer Examiners who made this special exam session possible:

W4DTR -- Dave (CVE)

NV4Q – Bill

KM4SWL – Richard

K4CQO – Bob

AF4FG – Earl

WB1AKQ – Pam

WB4QDX – John

KJ4CNC – Ralph

Thanks & 73,

Dave Bruse, W4DTR (CVE)

GARS VE Team Leader

Email: exams@gars.org



GARS Support of JOTA

JAMBOREE ON THE AIR (JOTA)

October 21st from 9:00 AM – 4:00 PM

VFW Post 5255, 368 Grayson Highway

Lawrenceville, GA 30046



This is a free event that is open to all Cub Scouts, Scouts BSA, Venturers, Sea Scouts, Girl Scouts, and the general public.

Come learn and have fun at JOTA 2023. JOTA is an annual Scouting event that uses amateur radio to link Scouts around the world, around the nation, and in our own community. Scouts of any age can participate, from Cub Scouts to Boy Scouts, Ventures, and Girl Scouts. This is the official JOTA site of the Northeast Georgia Council Amateur Radio Club [**KK4BSA**](#).

For Scouts BSA interested in the Radio Merit Badge, we will be signing off on requirement 9(a). You can either bring a Blue Card or we will provide a signed certificate which can be brought to the Apalachee Advance-A-Rama where the other Merit Badge requirements will be covered.

For information contact Steve Back [**WB2OGY**](#) [**sb@sback.org**](mailto:sb@sback.org)

Upcoming Stone Mountain Hamfest



STONE MOUNTAIN HAMFEST

and ARRL  State Convention

Please plan on attending on November 4 & 5, 2023

This is our 50th-year mark of holding this HamFest



GARS provides an integral part supporting this Hamfest. This year it is providing:

- 50% Better Forums
- 50% Better Workshops

Only a few weeks until the HamFest, the Ticket Booth is open:

Show your support and get your tickets now. There is an Early-Bird prize for those buying Admission Tickets via the Ticket Booth. <https://stonemountainhamfest.com/index.php/ticket-booth/>

Ham Radio Exams:

Exams for all license tests are from 1:00 p.m. until 3:00 p.m. on Saturday and from 9:30 a.m. until 11:30 a.m. on Sunday. **There is no fee to take an exam**, the HamFest is covering the fee for all examinees. We do ask that you come prepared; bring a filled-out 605 form and your FCC Registration Number (FRN). It would also be a good idea to have taken and passed FREE practice exams. <https://stonemountainhamfest.com/index.php/ve-testing/>

Lodging and Camping Info:

<https://stonemountainhamfest.com/index.php/lodging/>
<https://stonemountainhamfest.com/index.php/camping/>

Just a reminder to all, there is a link on the GARS homepage to help volunteer with the Nov HamFest. Here is a direct link to the signup sheet. It is a Multi-Tab sheet and on some pages/tabs, you need to scroll down to see everything.

https://docs.google.com/spreadsheets/d/1puFpxwJzAoM4ecba_buDpAuAbckR7GCFxGL7Yjv37xA/e/dit#gid=548602171

Swan Song of Swan - the 750cw

Vintage Amateur Radio

de Bill Shadid, W9MXQ



Sometime in the past, I penned an article on what would be called rare or even “unobtainium”¹ ham radio products. That came with a promise to detail some of those products, based on personal experience.

As I have often said in the past, in every product family manufactured, there are common items in the resulting population and items that are somewhat hard to find, if you are a collector. Ham radio is no different – there are items from the past you can readily find, items that can take a lot of time and work to find, and then there are items that seem impossible to locate – no matter how hard one tries.

One such hard to find item is what my friend, Mark Olson, KE9PQ, who runs a business based on Vintage Amateur Radio Equipment², once referred to Swan’s last vacuum tube-based transceiver as “The Swan Song of Swan.” That is the theme of this article’s subject.

The radio defined here is the Swan 750cw Transceiver. It dates from its introduction, in 1977. Most think of it as Swan’s last tube transceiver, so it was their “Swan song.”

Here is a picture of the Swan 750cw as it sits with its matching PSU-3 AC Power Supply and Speaker

...



Swan 750cw HF SSB/CW Transceiver
Shown with its matching PSU-3 Power Supply/Speaker

W9MXQ

The 750cw was more like the Swan 500c and 500cx models than it was any unique, upgraded product. Except, that is, for its rather odd “cw” in its model number. More about that a bit later. For now, look at some comparisons between the extremely popular 500cx and the 750cw:

- Both models covered the 80 through 10-meter ham bands. There was some overlap for MARS³ and CAP³ use with no modifications for those services required on either radio.
- Power input was the same with 550 watts PEP input on SSB and 360 watts DC input power on CW. Output was roughly 275 watts on SSB and 180 watts DC on CW. There was some variance band to band with less power on 10 meters.
- Receiver specifications were identical.
- The rather unique Swan conversion scheme – with the VFO running on different ranges, depending on the operating frequency band.
- Regrettably missing on the Swan 750cw, but present on earlier models, was the effective Automatic Noise Limiter circuit. While not a true Noise Blanker, it was effective on many kinds of impulse noise. (Swan did offer an external cabinet mounted Noise Blanker as an option for

the 500c, 500cx, 700cx, and 750cw. It was also quite effective – especially when these radios were operated in a vehicle.)

Up to the release of the 750cw, the model number of Swan transceivers closely paralleled the SSB input power of the radios. Between the 500 series and the 750cw, Swan had offered the 700cx transceiver with SSB and CW input power of 700 and 400 watts, respectively. That model owed its performance to its Tung Sol model 8950 graphite anode sweep tubes. The tubes had a short marketing life due to the demise of tube televisions (their primary volume customer). By 1977 these tubes were most likely close to impossible to source for an OEM product. So, Swan returned to the 6LQ6/6JE6/6MJ6 tubes that had begun their use in Swan radios with the 500c and 350c models. With the introduction of the 750cw the move to an increasingly higher model number seemed to meet a marketing plan requirement – thus ending a long connection between model number and power.

The biggest differences one can see in the Swan 750cw, when compared to earlier models was the meter and the readout dial color. Long known for their large, easy to read, and smooth operating meters, the 750cw moved to a relatively small meter with unacceptable (in my opinion) resolution and erratic operation. Perhaps the biggest problem is the black on white background on the earlier models compared to the white on black on the 750cw. Look at the meters and the dials compared in these pictures:



Swan 500cx – Left side of Front Panel

W9MXQ



Swan 750cw – Left side of Front Panel

W9MXQ

Swan seemed to try and improve the 750cw meter. Even though the total number of 750cw built was small, they tried to reorganize the space available for the legend. But it was not too successful as the mechanical characteristics of the meter assembly did more to determine the view than did the printing of the face. If you look carefully at the two pictures below, you can see that the actual arc of the meter readout scale is not changed from one version to the other. Moving of the Swan logo from the left side to the lower center only seems to improve resolution.



Swan 750cw – Early Meter

W9MXQ



Swan 750cw – Late Meter

See Note 4

There may have been a perceived difference in resolution, but it was not present in reality!

The change in the dial segment was from a two-color background to a white on black frequency dial. At that time, it appeared that it was to give a more military look to the radios. I think that the change removed a very well recognized Swan look of color. But, at the same time, the new look was not necessarily objectionable.

Owners of the Swan 350, 350c, 500, 500c, 500cx, 700cx, HF-700S, and 750cw will see little difference in the interior view of their respective transceivers. Here are top interior views for the 500cx and the 750cw . . .



Swan 500cx – Left side of Front Panel

W9MXQ



Swan 750cw – Left side of Front Panel

W9MXQ

Evident in the 500cx is the shielded tube at the top center of the picture – and the fact that there is a vertically mounted circuit board in that location in the 750cw. That is V13, the Balanced Modulator tube in the 500cx – replaced by a solid-state circuit in the 750cw. Also evident is the change in brand of the i-f filter (blue in the 500cx and silver in the 750cw). The i-f filters in Swan equipment were some of the best found in ham radio. For the most part, these two designs stayed the same throughout the production of the 350, 350c, 500, 500c, 500cx, 700cx, HF-700S, and 750cw models. The supplier of choice, however, did change, as it appears. I have seen both Network Sciences and C-F Networks filters in Swan radios.

The PSU-3 AC Power Supply/Speaker (shown to the left of the 750cw in the first picture in this article) is a gem and is a substantial upgrade over the 117x and 117xc (Power Supply alone and with Speaker, respectively) that had been in service with Swan transceivers since the time of the Swan 240. The PSU-3 used the power transformer from the much more substantial Swan 600-T Transmitter and gave a new power capability for the high-powered Swan HF Two-Tube Final HF Transceivers. The PSU-3 Power Supply was first marketed with the extra powerful 700cx. However, the 117x and 117xc will, in fact, power even the 700cx Transceiver – but it will run a bit warm doing so.

The 750cw was marketed as “the CW Operator’s Dream” due to its included digital bandwidth filter (an audio-based filter) that was quite effective at 80 or 100 Hz. While audio filters have their advantages – they can only partly replace a good narrow bandwidth crystal or mechanical filter in the i-f path. The audio filter in the 750cw (installed also in the same form in the HF-700S) is relatively free of hiss and other issues that makes many such filters objectionable. Like most radios when operating CW, the proper use of RF Gain adjustment in the 750cw minimizes any AGC-pumping evident in these filters outside the AGC loop.

The audio filter is nice, but CW as a convenient operating feature eluded most Swan transceivers before the release of the Astro⁵ models – that is, unless the Remote VFO is installed. While no longer manufactured at the time the 750cw Transceiver, the Model 508 VFO – shown below with the 500cx Transceiver – worked perfectly as an accessory.



Swan 500cx Transceiver with 508 Remote VFO and 117xc Power Supply/Speaker

W9MXQ

The Swan transceivers mentioned here lacked the capability to shift the receiver (separate from the transmitter) for listening comfort. Sometimes this was necessary on SSB as well. That feature is present in radios with Receiver Offset Tuning (RIT) as a part of their feature set. The use of a Remote VFO allows that flexibility. Late model Swan Remote VFO's (such as the 410c⁶ or the 508) are plug and play with the 750cw. Adding the remote VFO has the added benefit of allowing split operation – such as often done working DX. The lack of Receiver Offset Tuning was not just a Swan issue. Collins, Drake, Galaxy, and other transceivers of the day lacked this feature – but they all offered accessory Remote VFO units. Only Hallicrafters offered Receiver Offset Tuning from the beginning of their SSB and CW transceivers. National followed shortly behind Hallicrafters. Swan's late generation solid-state transceivers, just over the horizon at the time of the 750cw, offered this important feature.

The CW transmit monitor in the Swan 500c was terrible. It improved a bit with the 500cx and 700cx (marginally!) then seemed to finally work in the HF-700S and the 750cw. Even in those last two units, it was only barely acceptable.

These are the last two-tube final Swan Transceivers – four models.



Swan 500cx

W9MXQ



Swan 700cx

SwanNetwork



Swan HF-700S

KE9PQ



Swan 750cw

W9MXQ

The HF-700S is more toward a Cubic Communications product (Swan's parent company) in panel design and cabinetry. And, unlike the other three, only the 700cx used the 8950 final tubes – as noted, above.

The Swan HF-700S and the 750cw are electrically identical – according to what I can determine by an examination of literature and schematics. Notice the Swan styling change between the 500cx and the later 700cx and 750cw. The line across the lower third of the front panel on the 500cx dips below the main tuning knob while on the 700cx and 750cw it seems to go through the knob area. While mostly identical in layout, the 750cw and HF-700S also different in two other places. One was the use of the much more desirable paddle switches in the HF-700S and the movement of the PTT/VOX switch on the HF-700S to the location under the meter rather than to the right of the readout window on all models up through the 700cx.

Swan radios are very dependable – probably tied to their rather unsophisticated design that provided excellent basic communication. That was a hallmark of Swan's product engineering until the release of the much more advanced Astro⁵ line of radios.

A dependability issue in late models was the balanced modulator in the HF-700S and the 750cw. Swan moved to a solid state design after progressing from a 7360 tube based design, to a 6JH8 tube based design, then on the HF-700S and 750cw the final move to a solid state design based on a MC1496 chip. The solid-state design increased failures by 20 times⁷. If you find yourself with a Swan HF-700S or a 750cw you had better also have a few Motorola MC1496P chips on hand as well. It would seem from I can determine, use of the optional SS-16 i-f filter seems to be linked with the failure of the solid-state balanced modulator⁷.

I remain unsure of which of the two transceivers, the HF-700S or the 750cw was the last of the Swan two-tube final amplifier transceivers. Certainly, the 750cw was the last that “looked like a proper Swan should look.” Neither of them was a commercial success with the HF-700S seeing only 950 made⁷, and the 750cw seeing only 1,000 units⁷. A lot of evidence – such as the complete appearance revision – would seem to indicate that the HF-700S may have had that honor. Whichever one it really was – I can tell you that all Swan and Cubic radios have a special place with me and my life as a ham radio operator.

A special thanks go to Bob, W9DYQ, for his proof reading. And I appreciate that you read my articles. Remember that I am open to questions and comments at my email address, W9MXQ@TWC.com.

Notes:

¹ This is found in a Bing search of the word, “unobtainium.”

² Mark Olson, KE9PQ, is the owner and operator of Nationwide Radio & Eq. Sales, Inc. Locate them at [Nationwide Radio \(mybigcommerce.com\)](http://NationwideRadio(mybigcommerce.com)).

³ MARS is Military Auxiliary Radio System. CAP is Civil Air Patrol. Check these references:

MARS: [Military Auxiliary Radio System - Wikipedia](https://en.wikipedia.org/wiki/Military_Auxiliary_Radio_System)

CAP: [Civil Air Patrol - Wikipedia](https://en.wikipedia.org/wiki/Civil_Air_Patrol)

⁴ Unfortunately, while I am certain from personal experience in seeing these meters, I cannot identify the source for the late 750cw meter picture.

⁵ Subject of a future article.

⁶ The 410c requires the use of the Swan Model 22 Remote VFO Adapter to use with any Swan transceiver. The 410c has no internal switching for VFO selection as does the model 508. This necessary switching is accommodated by the Swan model 22 or 22B Remote VFO Switch. This device plugs into the rear panel Accessory connector of Swan Transceivers (and the 600-R and 600-RC Receivers) and allows for necessary switching by extending a switch over the top of the radio – easily reached by the operator.

⁷ Information from the Swan Compendium, Revision 4.



GARS Membership

New Members in September

Walter Hill (KQ4KAO)
Harvey Hollander (KQ4KPP)
Kimberly Fodero
Omar Hoyos (KC3EZL)
Krishna Mupparaju (W3SP)

New Members: 5

**Total Members as of
October 1, 2023
374**

Birthdays in October

Larry Andrus (KB4LWT)
Ray Bailey (N4GYN)
Scott Brown (KD4YDD)
Dale Burns (KI4MZO)
Dad Carmona
Bill Cohron (WD4AMC)
Jonny Dorminy (KN4LGM)
Charles Eiland (WA4RVO)
Joshua Garcia-barreto (KM4OMX)
Neil Gardner (KO4UHX)
Benjamin Goings (KM4RTO)
Ellen Hawkins (KM4RRW)
Bill Kirk (N4WWK)
Kathy Kitz
Robert LaBerge (KC4BI)
Joel Levine (WA4HNL)
Hana Londono
Mac McDonald (NN4K)
Carol McDonald
William Nash (KO4ZDH)
Laura Orey
Catherine Perry
Cathy Pierce (K1YMW)
David Price (W4QDV)
Bob Pursley (WD4KQQ)
Michael Sheaffer (W4ANO)
Allison Sullivan (KK4VLR)
Mike Weathers (ND4V)
Glen Wendt (W3WWT)
Allan Winn (KG6NKU)

Join GARS members for our:

- weekly lunch bunch at 11:30 AM most Fridays
- weekly breakfast gathering at 8:00 AM most Saturdays

Both weekly gatherings are held at The 5 Spot at:

The 5 Spot restaurant
[555 Progress Center Ave](https://www.the5spot.com/)
[Lawrenceville, GA 30043](https://www.the5spot.com/)

GARS MEMBERSHIP

Your current GARS membership status is shown in the monthly newsletter e-mail towards the bottom of the message. To become a GARS member, or to renew your GARS membership, please visit our website – <http://www.gars.org>. To make changes to your GARS membership (moved, new e-mail address, new phone number, etc.), please contact the Membership Chair at [Email \(https://gars.org/contact/\)](mailto:membership@gars.org) with any changes to your Membership information.

Membership Chair: Karen Albritton, KI4HPP

Committee Members: Dave Bruse, W4DTR

ARRL MEMBERSHIP

To update your ARRL membership information, please visit their website - <http://www.arrl.org>.

MAINTAIN YOUR LICENSE

You can update your Amateur Radio license information with the FCC at their website for free - <https://www.fcc.gov/wireless/universal-licensing-system>. License renewal is subject to the \$35 FCC fee.



Donating to GARS

Your GARS donation can be used for a certain purpose by donating to one of these funds:

- GARS SK Memorial Fund for Education
- (to remember and honor Silent Keys);
- GARS Scholarship Fund (Administered by the ARRL for awarding scholarships);
- GARS General Fund (any club purpose).

GARS has joined these rewards programs (a portion of every purchase you make through these merchants may be donated to GARS):

- Kroger Community Rewards program.

For more information on how to sign up for these rewards programs, or to donate to GARS, visit

<http://gars.org/gars/donations-to-the-club>

GARS on Social Media



Discord Request:

<http://gars.org/discord>



Groups.io:

<http://gars.org/groups.io>



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Lawrenceville, GA 30049

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Alex Kowalchuk, Vice President AK4AM



Bill Hawkins, Secretary WR1TR



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Karen Albritton, Membership Chair KI4HPP



Dave Bruse, VE Team Leader W4DTR



David Adcock, Webmaster, Field Day Chair, TechFest Chair KA4KKF



Ralph Pickwick, Education Chair KJ4CNC



Earl Whatley, Apparel Manager AF4FG



Bob Hoffmann, GARzette Editor K4CQO



Eddie Foust, Repeater Chair WD4JEM



Mike Weathers, WAS / DXCC QSL Card Checker and Historian ND4V



Chuck McCord, Net Manager KK4TKJ



Steve Back, Technical / RFI Advisor WB2OGY



Dallas Mellichamp, Workshop Leader N4DDM



Sandy Jackson, Health and Wellbeing KJ4DRO



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Kyle Albritton, W4KDA



Bill Cherepy, WB4WTN W4GR Trustee



GARS Meeting Minutes

Gwinnett Amateur Radio Society – MEETING 9/12/2023

There were 44 in-person attendees

President Joe Biddle (AD4PZ) opened the meeting at 7:00 p.m. and closed the meeting at approximately 8:35 p.m.

New hams and visitors: Joe (AD4PZ)

- Upgrades recognized.
- Introductions all around.

Treasurer Report: Joe (AD4PZ)

Education: Ralph (KJ4CNC)

- The McConnell Middle School Radio club started. This is the first time in several years that they have both experienced and new kids. They will be on the repeater on Wednesdays between 4:00 and 6:00 p.m.
- Technician Ham Cram is coming up September 30 – October 1. Pre-register on the GARS site.

VE Team: Bob (K4CQO)

- This weeks test had 3 applicants. All passed. 2 Generals and 1 Tech.

Programs: Kevin (K4GTR)

- October – Show-n-Tell, Favorite Ham Projects. No response yet.
- November – Nothing set yet. If you have an idea, contact Kevin.
- December – Holiday Party.
- January/February – A two part series covering surface mount and designing your own circuit board.
- The list of scheduled meeting programs is on the GARS.ORG site.

Workshop: Dallas (N4DDM)

- Workshops mirror the monthly program.

Apparel: Earl (AF4FG)

- We have a number of items that were ordered and paid for that have not been picked up. If you have ordered an item or know someone who has, check out the items. The items are personalized.

Hamfest: David (KA4KKF)

- First weekend in November. The 4th and 5th
- We need help with setup and manpower to run it.
- Go to the Stonemountainhamfest.com page for tickets. Get them in advance for \$8 or \$10 in person.
- There is a signup sheet on our site to volunteer.
- VE team members are needed as well.
- Access will be from the Davis Road side this year.
- Ralph (KJ4CNC - Hamfest treasurer) spoke about the need for volunteers.

Techfest:

- At county fairgrounds the second weekend of January.
- Saturday morning exam session will be free... paid for by GARS

Other: Joe (AD4PZ)

- JOTA – Steve (WB2OGY) Jamboree on the air will be October 21 at the Lawrenceville VFW hall. Come by and sell the kids on the fun of ham radio
- Kevin (W4KIB AV chair) - We are recording meetings so if you have a question, wait for the mic.

Program: Favorite websites and phone apps. Presented by Kevin (K4GTR)

Minutes prepared by club secretary Bill Hawkins (WR1TR).

Workshop Minutes - Sept 19, 2023

Number in Attendance: 13

Workshop Topic: Favorite Ham Related Websites and Apps

Presenter: None

Brief Summary: Nobody present wanted to go over Favorite Websites and Apps so folks broke into groups and went over DRM Hot Spots, the flashing of a MicroTik Access Point with AREDN MESH software. Plus we had various other discussions about the upcoming Stone Mountain HamFest, recruiting volunteers for the HamFest, and the new GA ARES website.



Events – GARS and others

ARRL CONTESTING INFO

From ARRL Contest Calendar

> For more information click the links <

2023	January
1	Straight Key Night
7	Kid's Day
7-8	RTTY Roundup
21-23	January VHF Contest
	February
13-17	School Club Roundup
18-19	International DX – CW
	March
4-5	DX Contest -- SSB
	April
16	Rookie Roundup – Phone
	May
	No planned contests
	June
3-4	International Digital Contest
10-12	June VHF
17	Kid's Day
24-25	Field Day
	July
8-9	IARU HF World Championship
	August
5-6	222 MHz and Up Dis Contest
19-20	10 GHz & Up – Round 1
20	Rookie Roundup – RTTY
	EME - 2.3 GHz & Up
	September
9-11	September VHF
16-17	EME - 2.3 GHz & Up – Rnd 2
9-10	10 GHz & Up – Wknd 1
	October
29-29	EME - 50 to 1296 MHz
16-20	School Club Roundup
	EME - 50 to 1296 MHz
	November
4-6	Nov. Sweepstakes - CW
25-26	EME - 50 to 1296 MHz
18-20	Nov. Sweepstakes - Phone
	December
1-3	160 Meter
9-10	10 Meter
17	Rookie Roundup–CW

For more information:

<http://www.arrl.org/contest-calendar>

HAMFEST CALENDAR

[Please confirm the status of a Hamfest before making plans to attend]

10/13/2023 - 10/14/2023 [Melbourne Hamfest - ARRL Florida State Convention](#)

Location: Melbourne, FL

Type: ARRL Convention

Sponsor: Platinum Coast Amateur Radio Society

Website: <http://www.pcars.org/>

10/14/2023 - [Flamingo Net Flea at U. of Miami](#)

Location: Coral Gables, FL

Type: ARRL Hamfest

Sponsor: Flamingo Net ARC

Website: <http://www.FlammingoNet.8m.net>

10/14/2023 - [NOARC \(W4AAZ\) Annual Hamfest](#)

Location: Crestview, FL

Type: ARRL Hamfest

Sponsor: Live Oak Baptist Church, The City of Crestview Florida, Main Street Association Crestview

Website: <https://w4aaz.org/noarc-hamfest/>

10/21/2023 - [MARCIFEST 2023](#)

Location: Bradenton, FL

Type: ARRL Hamfest

Sponsor: Manatee Amateur Radio Club, Inc.

Website: <https://www.manatee-arc.org/>

10/28/2023 - [Wiregrass ARC - Fall Tailgate](#)

Location: Headland, AL

Type: ARRL Hamfest

Sponsor: Wiregrass ARC

Website: <http://w4dhn.org>

11/04/2023 - [Bahia Shriner's Tailgate](#)

Location: Apopka, FL

Type: ARRL Hamfest

Sponsor: Bahia Shrine Amateur Radio Unit

11/04/2023 - 11/05/2023 [Stone Mountain Hamfest](#)

Location: Lawrenceville, GA

Type: ARRL Convention

Sponsor: Alford Memorial Radio Club

Website: <http://stonemountainhamfest.com/>

11/11/2023 - [Montgomery ARC Hamfest](#)

Location: Montgomery, AL

Type: ARRL Hamfest

Sponsor: Montgomery, Alabama Amateur Radio Club

Website: <https://w4ap.org/marc/index.php/hamfest/hamfest-2023>

11/25/2023 - [Flamingo Net Flea at U. of Miami](#)

Location: Coral Gables, FL

Type: ARRL Hamfest

Sponsor: Flamingo Net ARC

Website: <http://FlamingoNet.8m.net>

12/02/2023 - [Silver Springs Radio Club 2023 Hamfest](#)

Location: Ocala, FL

Type: ARRL Hamfest

Sponsor: Silver Springs Radio Club

Website: <http://k4gso.us>

For more information: www.arrl.org/hamfests-and-conventions-calendar

When searching by division, remember some states adjacent to GA are in different divisions: Southeastern: GA, AL, FL Delta: TN Roanoke: NC, SC



GARS Events Calendar for 2023		GARS Recurring Calendar
TechFest Winter Field Day Spring Technician HamCram Dog Show Fundraiser Georgia QSO Party North metro area Fox Hunt Summer General HamCram Memorial Day Parade ARC/KARC Hamfest Field Day JOTA Fall Technician HamCram Stone Mt. Hamfest Holiday Party	January 14 2023 January 28-29 2023 March 25-26 2023 March 29-April 2 2023 April 8-9 2023 April 2023 April 29-30 2023 May 29 2023 June 3 2023 June 24-25 2023 October 2023 September 30- October 1 2023 November 4-5 2023 December 2 2023	<ul style="list-style-type: none"> 2nd Tuesday of the month at 7 pm (except December) Monthly Club Meeting 690 Airport Rd, Lawrenceville, GA 30046 3rd Tuesday of the month at 7 pm (except December) Monthly Workshop 690 Airport Rd, Lawrenceville, GA 30046 2nd Sunday of the Month at 2 pm GARS Ham Exam Session 690 Airport Rd Lawrenceville, GA 30046 Every Monday at 7:30 pm: GARS Want, Swap, Sell, and Information Net on the GARS 147.075 MHz repeater Every Monday at 8:30 pm: ARES Training on the GARS 147.075 MHz repeater Every Friday at 11:30 am, GARS Lunch at The 5 Spot Every Saturday at 8:00 am GARS Breakfast at The 5 Spot

GARS Calendar for October 2023						
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 GARS Technician HamCram & Exam	2 7:30 – 8:00 PM 2M Net	3 7:00 PM Exec Meeting	4	5	6 11:30 AM Lunch at The 5 Spot	7 8:00 AM Breakfast at The 5 Spot
8 2:00 PM GARS Ham Radio Exams, EAA 690 Hangar	9 7:30 – 8:00 PM 2M Net	10 7:00 PM Meeting EAA 690 Hangar	11	12	13 11:30 AM Lunch at The 5 Spot	14 8:00 AM Breakfast at The 5 Spot
15	16 7:30 – 8:00 PM 2M Net	17 7:00 PM Workshop Meeting EAA 690 Hangar	18	19	20 11:30 AM Lunch at The 5 Spot	21 8:00 AM Breakfast at The 5 Spot
22	23 7:30 – 8:00 PM 2M Net	24	25	26	27 11:30 AM Lunch at The 5 Spot	28 8:00 AM Breakfast at The 5 Spot
29	30 7:30 – 8:00 PM 2M Net	31				

Local Ham Radio Exams & Meetings

GARS Ham Radio Exams

Second Sunday of the month

Preregistration is **REQUIRED**

Doors open at 1:45pm, exams start promptly by 2:00pm

For more information and to preregister, please visit <https://gars.org/exams/>

GARS VE-Team

VEC: W5YI-VEC

EAA 690 Hangar

690 Airport Rd

Lawrenceville, GA 30046

GARS VE Team Leaders

E-mail: exams@gars.org.



September 2023 Results

The GARS VE Team had a great exam session on 10 September.

2 Upgrades to General:

- William Flake - KD4HLG
- Harvey Hollander - KQ4KPP

1 New Technician:

- Yongseong Hwang - KQ4LDW

Special thanks to the Volunteer Examiners who made this exam session possible:

W4DTR – David Bruse

AF4FG – Earl Whatley

N4XYY – Rick Cobb

K4CQO – Bob Hoffmann

WB2OGY – Steve Back

NV4Q – Bill Carmichael

Thanks & 73, Chuck McCord, KK4TKJ (Co-CVE)

Local Ham Radio Exams

In order to find an exam session near you, please visit

http://www.arrl.org/exam_sessions/. Contact the information in the listing for further information.



Local Ham Radio Meetings

In order to find a local Ham Radio Club meeting near you, please visit

<http://www.arrl.org/find-a-club>. Contact the club for meeting information.





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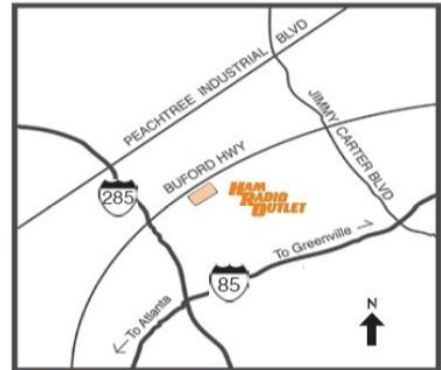


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